

CLAIMS

1. A communication system comprising:

a transmission section that transmits, for each accumulative ACK packet received, packets with a transmission window size determined in response to a new window-size information added to the accumulative ACK packet;

a reception section that receives and counts the packets with the transmission window size, which are transmitted from the transmission section, that generates a packet count value, and that returns the accumulative ACK packet if the packet count value reaches a specified reference number corresponding to the transmission window size; and

a new window-size information generation section that generates the new window-size information based on a packet arrival time required for the specified reference number of the packets corresponding to the transmission window size to arrive, and that adds it to the accumulative ACK packet.

2. The communication system according to claim 1, wherein the new window-size information generation section generates the new window-size information indicating a decrease in the transmission window size if the packet arrival time is greater than a specific threshold value, and indicating an increase in the transmission window size if the packet arrival time is

less than the specific threshold value.

3. The communication system according to claim 1, wherein the new window-size information generation section generates the new window-size information
5 indicating a decrease in the transmission window size if the packet arrival time is greater than a first threshold value, generates the new window-size information indicating a hold in the transmission window size if the packet arrival time is less than the first threshold value
10 and greater than a second threshold value, and generates the new window-size information indicating an increase in the transmission window size if the packet arrival time is less than the second threshold value.

4. A communication method of the communication system
15 including a transmission section that transmits, for each accumulative ACK packet received, packets with a transmission window size determined in response to a new window-size information added to the accumulative ACK packet, comprising:

20 a reception step of receiving and counting the packets with the transmission window size, which are transmitted from the transmission section, generating a packet count value, and returning the accumulative ACK packet if the packet count value reaches the specified
25 reference number corresponding to the transmission window size; and

a new window-size information generation step of

generating the new window-size information based on a packet arrival time required for the specified reference number of the packets corresponding to the transmission window size to arrive, and adding it to the accumulative

5 ACK packet.